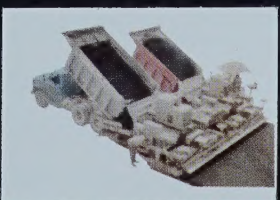
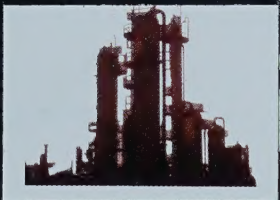


AR44





Government
Systems

Missile Systems, Equipment,
Electromagnetic Systems, and
Submarine Signal Divisions;
Raytheon Service Company;
Raytheon Canada Limited



Tactical air defense systems, related
radar and command and control systems;
air traffic control and navigational aids;
shipboard radar systems, detection and
instrumentation, guidance and control,
military communications; electronic
countermeasures; submarine sonar systems

Commercial
Electronics

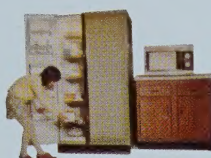
Semiconductor Division; Microwave
and Power Tube Division;
Raytheon Data Systems Company;
Raytheon Marine Company;
Sorensen Company; A.C. Cossor
Limited; Sterling Cable Company



Semiconductor and microwave components,
data handling and communications systems,
medical electronics, marine electronics,
electrical cables, power supplies

Major
Appliances

Amana Refrigeration, Inc.;
Caloric Corporation



Refrigerators, freezers, room air
conditioners, central heating and air
conditioning systems, microwave ovens,
gas and electric ranges, dishwashers

Exploration,
Engineering,
& Construction
Services

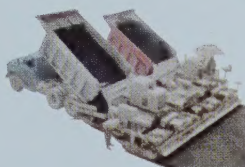
Seismograph Service Corporation;
Seismograph Service Limited;
Compagnie Francaise de Prospection
Sismique; The Badger Company, Inc.;
Badger Limited; Badger N.V.;
United Engineers & Constructors Inc.



Geophysical exploration; design,
engineering, and construction of oil,
chemical, and petrochemical processing
plants and of electric power generating
facilities

Heavy
Construction
Equipment

Iowa Manufacturing Company



Stationary and portable aggregate
producing and asphalt mixing plants;
asphalt paving equipment

Educational
Publishing

D.C. Heath and Company



School and college texts and other
instructional materials; professional
and reference books; spoken-word
records; science lab materials and
equipment



The year 1972 marked the Fiftieth Anniversary of the founding of American Appliance Company, predecessor to Raytheon Company. In 1925, the name Raytheon Manufacturing Company was adopted; in 1959, it was changed to Raytheon Company.

The founders of American Appliance Company were Laurence K. Marshall, Dr. Vannevar Bush, and the late C.G. Smith.

These three provided the initial thrust and early guidance. Through the ensuing years, there were thousands of others who helped sustain the momentum. Together, these men and women of Raytheon fashioned an exciting story.

It is appropriate that this story be told and that it be told clearly, honestly, and objectively. To this end, Raytheon has commissioned Otto J. Scott, writer and business historian, to research and record the history of the company.

The Annual Meeting of Stockholders will be held on May 23, 1973, at the Executive Offices of the company, Lexington, Massachusetts. Notice of the meeting and proxy material will be sent to stockholders in April.

This Annual Report is submitted for the general information of the stockholders of Raytheon Company and is not intended for use in connection with any sale or purchase of, or as an offer or solicitation of offers to buy or sell, any securities.

Comparative Highlights

	1972	1971 Restated*
Net sales	\$1,465,031,000	\$1,347,138,000
Income before extraordinary item	\$ 41,174,000	\$ 38,408,000
Extraordinary item	\$ 3,275,000	\$ —
Net income	\$ 37,899,000	\$ 38,408,000
Earnings per common share:		
Fully diluted – assumes conversion of preferred stock and exercise of dilutive stock options:		
Income before extraordinary item	\$2.58	\$2.37
Extraordinary item	(.21)	—
Net income	\$2.37	\$2.37
Cash dividends paid:		
Preferred stock, \$1.12 per share	\$ —	\$ 1,213,000
Common stock, \$.60 per share	\$ 9,370,000	\$ 8,370,000
Net working capital	\$ 236,051,000	\$ 231,885,000
Net property, plant and equipment	\$ 136,180,000	\$ 134,165,000
Stockholders' equity:		
Total	\$ 336,013,000	\$ 327,756,000
Per common share**	\$21.59	\$20.35
Outstanding shares of common stock:		
At end of year **	15,564,578	16,102,190
Average outstanding during year	15,898,052	15,011,720
Stockholders of record	24,736	30,672
Backlog:		
Total orders	\$1,008,634,000	\$ 936,556,000
U.S. Government funded orders included above	\$ 542,345,000	\$ 446,233,000

*Restated to include the companies acquired in a pooling of interests during 1972.

**Assuming full conversion of Series A preferred stock.

In connection with the above, reference should be made to the Financial Review and Financial Statements. Amounts above pertain to results for the entire year or represent year-end balances or statistics.



Raytheon had a good year in 1972. New highs were established in sales, operating earnings, and earnings per share. We introduced innovative new products in a number of our commercial markets and entered a new market through acquisition. Several of our major government programs passed important milestones and have good potential for increased sales both in this country and overseas. We ended the year in a strong financial position and with the highest total backlog in the history of the company.

A New Market

With the acquisition of Iowa Manufacturing Company in March, Raytheon entered a substantial new industrial market. Iowa Manufacturing produces a broad range of equipment for use in road building and other heavy construction. Iowa Manufacturing contributed significantly to our sales and earnings growth in 1972.

Early in 1973, we agreed to purchase Lacroix & Kress, a leading manufacturer of fine magnet wires used extensively in electrical and electronic equipment. Located in Osnabrück, West Germany, Lacroix & Kress will complement the product lines of our Sterling Cable subsidiary in Great Britain and will strengthen our position in the European Common Market.

The Improved Hawk air defense system went into full production early in 1972 and is now operational with the U.S. Army. The level of

production is expected to be significantly higher in 1973, and the Improved Hawk system is expected also to meet the forward area defense needs of NATO and other allied nations. Despite the termination of portions of our contracts for the production of Safeguard system Missile Site Radars, our government business is expected to grow in 1973.

Our appliance business grew by more than 20 per cent in 1972 as both Amana and Caloric expanded their product lines. Amana introduced a new central heating and air conditioning system built around the Raytheon-developed Heat Transfer Module, is extending its line of commercial Radarange® ovens, and continues to lead the consumer market for microwave ovens. Caloric increased its share of the gas range market and, for the first time in its history, entered the electric range market.

The Energy Market

Three of Raytheon's subsidiary companies are deeply involved in the accelerating effort to meet the growing demand for energy. United Engineers increased its sales by 25 per cent and is aggressively strengthening its organization to meet the growing demand for added electric power generating capacity. Seismograph Service Corporation sales were up 15 per cent as oil companies intensified their worldwide search for oil and gas; SSC is expanding its exploration, oil well logging, and other services to the petroleum industry.

*Charles F. Adams
Chairman of the Board*

*Thomas L. Phillips
President and Chief Executive Officer*

*D. Brainerd Holmes
Executive Vice President*



Despite the worldwide shortage of oil refining capacity, few refinery construction contracts were awarded in 1972. Early in 1973, however, The Badger Company was awarded two refinery contracts totaling more than \$200 million, and the company expects its orders to increase in 1973 and in the years ahead. Badger experienced a loss on a fuel oil desulfurization project in Trinidad during the year, but the project was completed by year end.

New Programmable Terminal

Raytheon Data Systems Company completed the development of its new programmable terminal system. Market response is excellent, and significant orders are being received for such uses as airline reservation systems, credit verification, and stock market transactions. In the third quarter of 1972, we made provision in an extraordinary item equal to \$.21 a share for loss related to settlement of litigation and other expenses associated with the withdrawal from the hospital information systems market.

Many significant milestones were successfully completed in our government programs. The SAM-D missile program was funded for its engineering development phase. The Sparrow AIM-7F missile completed operational evaluation by the U.S. Navy. The AN/TPN-19 aircraft landing system for the U.S. Air Force completed its reliability demonstration tests and is expected to go into production this year. Deliveries are being made on schedule of

Computer Display Channel equipment for the FAA's National Airspace System. By the end of 1973, the system will be in use in the enroute control of air traffic. Both the TPN-19 and CDC systems have potential for overseas sales. All of these programs are important to long-term national security or other government needs.

Outlook Is Good

Operating earnings in 1972 topped \$40 million for the first time in the company's history. Commercial sales reached a level of 52 per cent of the company's total, starting from a 1964 base of 17 per cent.

The diversification and growth strategy we first enunciated in 1965 remains essentially the same. With a much broader sales and earnings base today, however, our emphasis is upon strengthening and growing in those markets in which we now have a good foundation for growth. This will be accomplished through internal development, supplemented by judicious acquisitions.

The outlook for 1973 is good. We expect our earnings growth to outpace increases in sales, and we are confident that we will make steady progress toward our 1975 management goals.

Thomas L. Phillips

President

Charles F. Adams

Chairman

January 30, 1973



Raytheon's government business is characterized by the breadth and diversity of its base, the demonstrated technological and systems management capabilities applied to advanced defense and air traffic control systems, the company's long-standing record of good cost performance on government contracts, and the fact that Raytheon programs are meeting basic and long-term national defense needs.

In 1972, U.S. Government sales totaled \$705 million or 48 per cent of the company's total volume. The 1972 U.S. Government sales were generated from 16 major programs, accounting for some \$570 million, with the balance of \$135 million stemming from a broad and varied range of development and production programs.

Tactical Defense

Raytheon is prime contractor for the Hawk and SAM-D ground-to-air defense systems and the Sparrow and Sidewinder air-to-air systems.

The Improved Hawk system, providing significant advances in performance and economy of operations over the Basic Hawk, went into full production early in 1972 and deployment of the system by the U.S. Army has begun. The production rate will accelerate significantly in 1973. Acceptance of the Improved Hawk by the U.S. Army and Marine Corps has opened the way for

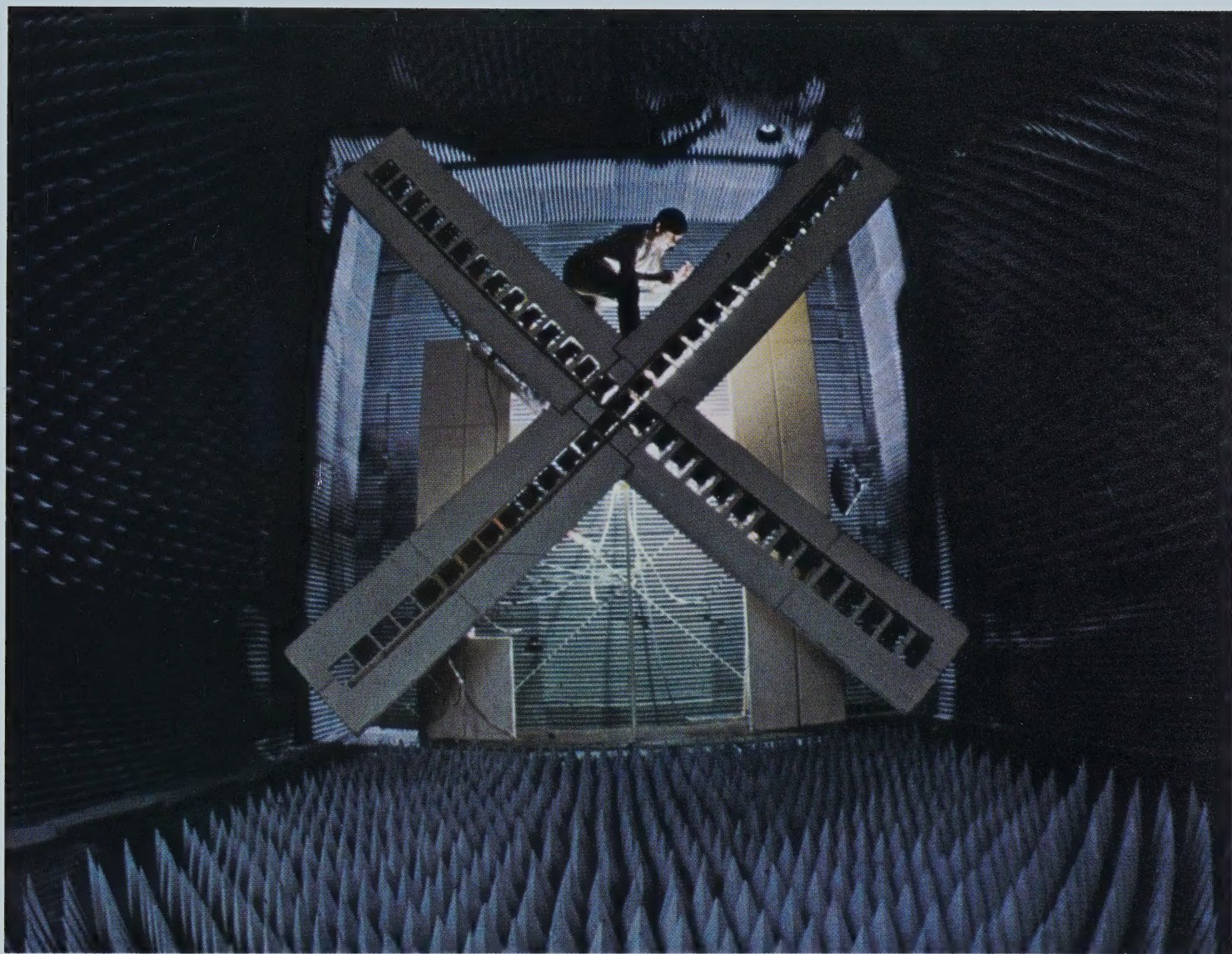
sales of the system to NATO and other allied nations already committed to the Basic Hawk for their air defense needs.

The SAM-D system went into engineering development in March of 1972 with the receipt of a \$558 million contract to be funded incrementally over the next five fiscal years. In engineering development, the final phase leading to production, prototype equipment and all data necessary for efficient production of the SAM-D system will be produced and tested.

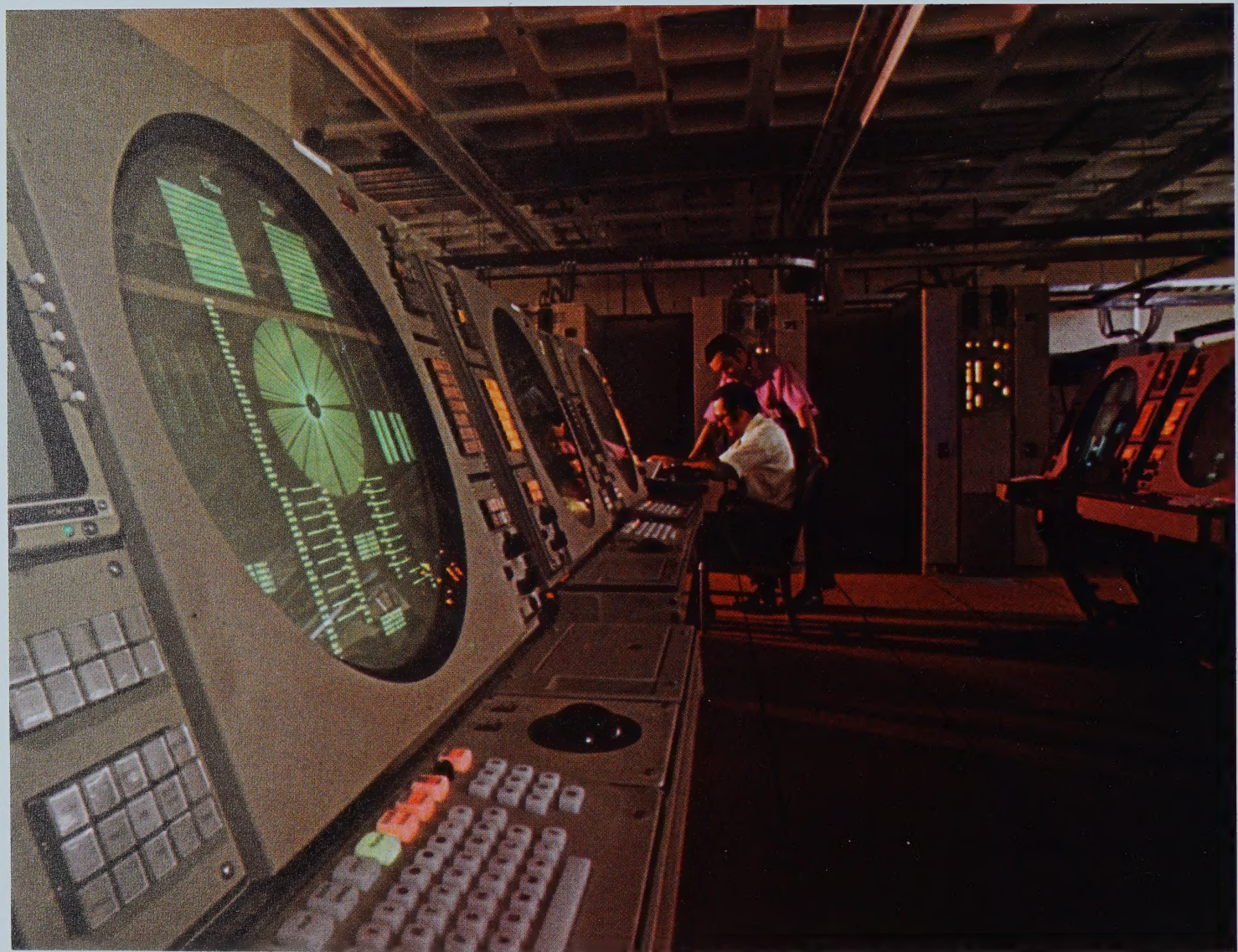
Advanced capability and economy of operation have been prime objectives throughout the development of SAM-D. Employing phased array radar and other advanced concepts in surface-to-air defense against attacking aircraft, SAM-D will meet the Army's air defense needs through the 1980's and beyond.

Operational evaluation flight tests of the Sparrow AIM-7F air-to-air defense system were successfully completed in 1972, and the system will go into limited production in 1973. The AIM-7F is designated as primary defensive armament on both the U.S. Air Force F-15 and Navy F-14 fighter aircraft. During 1972, Raytheon was awarded the prototype production contract for the AIM-9L Sidewinder, an advanced infrared-guided air-to-air defense system. This contract should enable Raytheon to continue to be a major supplier of heat-seeking air-to-air missiles.

Radar guidance system for SAM-D missile is tested in specially developed anechoic chamber. All surfaces of the chamber are covered with a material designed to absorb stray radar energy and thus permit accurate measurements.



Computer Display Channel systems being integrated with the central computer complex at the FAA's Los Angeles air traffic control center. The Raytheon displays will provide controllers with aircraft identifications, altitudes, weather, and other data needed for the efficient control of enroute air traffic.





Safeguard System

Under contract to Bell Telephone Laboratories and Western Electric, Raytheon developed and has been producing Missile Site Radars for the Safeguard ballistic missile defense system. In the fourth quarter of 1972, the U.S. Army terminated a portion of the contract for the production of Missile Site Radars. This action was in keeping with the provisions of the SALT agreement and the intent of Congress.

Congressional authority had previously been given for the production of three Missile Site Radars. Raytheon will complete production of the first MSR, to be deployed in North Dakota; contracts for the second and third MSR's were terminated. Raytheon announced in October that the impact of the termination on company sales would be approximately \$10 million in 1972 and \$60 million in 1973.

The company subsequently announced plans to phase out by mid-1973 its North Dighton, Massachusetts, plant where approximately half the manufacturing load was related to the production of Safeguard Missile Site Radars.

Air Traffic Control

Raytheon's services to modern aviation range from radars and navigation aids to sophisticated data displays for civil air traffic controllers.

For the Federal Aviation Administration's National Airspace System, Raytheon developed an advanced Computer Display Channel system that will aid the nation's air traffic controllers by performing electronically many of the functions they now perform manually.

Computer Display Channels are now being installed at the FAA's air route traffic control centers at Los Angeles, Kansas City, Oakland, and Indianapolis. During the year, Radar Display Subsystems were delivered on schedule to FAA air traffic control centers in New York, Washington, Cleveland, and Chicago, and to the FAA's Aeronautical Center and National Aviation Facilities Experimental Center. A total of 17 Computer Display Channel systems and seven Radar Display Subsystems are on order, each including approximately 50 Plan View Displays to be used by air traffic controllers. By year end, 519 Plan View Displays had been delivered to FAA sites.

For the U.S. Air Force, Raytheon developed the versatile AN/TPN-19 all-weather aircraft landing system. Tests of the prototype system continued during 1972, and release to production is expected in 1973.

In other advanced air traffic control programs, Raytheon has participated in the definition phase of the FAA's upcoming National Microwave

Equipment for the Lunar Surface Electrical Properties experiment conducted on the moon during the Apollo 17 mission was produced by Raytheon. The equipment performed well; data were transmitted to earth for study and analysis.



Navigational radar scope is installed aboard a large ship by Raytheon Service Company personnel. Services include installation, testing, maintenance, and integration of navigation, communications, and other shipboard electronic systems.



New programmable signal processor and display for use in advanced submarine sonar systems is tested in simulated submarine control room. Red lighting in the control room enhances visibility of dials and data displays.





Landing System and will, under NASA sponsorship, conduct experimental flight tests on a Raytheon laser system for the detection of clear air turbulence ahead of aircraft.

Raytheon Canada is marketing worldwide a broad range of meteorological, route surveillance, and terminal area control radars and aircraft navigational aids. Cossor Electronics Limited in England received the Queen's Award to Industry "in recognition of their outstanding achievement in technological innovation." The award is for Cossor's pioneering work in and continuing development of secondary surveillance radars for air traffic control.

Shipboard Systems

Raytheon has, for many years, been a major contributor to shipboard air defense systems for the U.S. and Allied Navies. The company is the prime contractor for the Tartar fire control system and the NATO and Canadian Seasparrow systems and is the major subcontractor for the Aegis system.

The NATO Seasparrow system successfully completed technical evaluation tests aboard the *USS Downes* and is expected to enter production in 1973. The fire control system being developed under the Aegis program is the basis for major technological improvements expected to be

incorporated in future Navy lightweight fire control systems. Aegis prototype hardware will undergo shipboard tests beginning in 1973. In 1972, the company received a contract from the U.S. Navy for the production of AN/SPS-49 air search radars for use aboard new Navy ships.

Guidance and Control

Raytheon is the major producer of the guidance electronics, including the computer, for the U.S. Navy's submarine-launched Poseidon missile. Work has begun on designs for the Trident, successor to the Poseidon for the 1980's.

Raytheon produced all of the Apollo guidance and navigation computers, with the display keyboards that gave astronauts access to the computers, for both the command and lunar modules. The precision performance that characterized the Raytheon computers in the earlier missions continued in the final two missions, conducted in 1972.

For Apollo 17, the final manned lunar mission, Raytheon also produced against a tight schedule the Lunar Surface Electrical Properties experiment package, under contract to the MIT Center for Space Research. The experiment, aimed at the detection of subsurface water, was performed

Harry A. Loebel
Raytheon Service Company

Rulon G. Shelley
Electromagnetic Systems Division



successfully on the surface of the moon, and the data were returned to earth for reduction, interpretation, and study.

Sonar and ECM Systems

Raytheon is a major supplier of sonar systems for the U.S. Navy's nuclear submarine fleet. Presently under development are two advanced signal processing systems to meet future submarine fleet needs. Using a modular approach for complete system flexibility, the company's Submarine Signal Division is developing a sonar signal processing system employing an advanced, programmable display. The system is designed to enhance the detection and tracking capabilities of nuclear submarines. Also in development is a sonar command and control system for the shipboard processing of acoustic data from airborne antisubmarine forces.

The Electromagnetic Systems Division, a leading supplier of airborne electronic countermeasures, had the best year in its history and entered 1973 with a substantial backlog. In addition, the division was awarded one of two competitive contracts by the U.S. Air Force to continue its pioneering work on an advanced multibeam system to meet future ECM needs.

Worldwide Services

Raytheon Service Company continued to expand its worldwide engineering, maintenance, and training services. RSC is now providing computer maintenance services to more than 30 equipment manufacturers through a worldwide network of more than 60 service facilities.

In other areas of the company's diverse business, contracts were won for the installation, integration, and maintenance of communications, navigation, and scientific equipment aboard the Argentine Navy's new hydrographic research vessel; for support services to the U.S. Navy in its program to interface a standard computer with weapons systems aboard Navy ships; and for logistics support of tracking, data acquisition, and communications facilities in the NASA Space Flight Tracking Data Network.

The RSC publications, technical writing, and graphic arts services also were expanded with increased responsibility for support of the U.S. Department of Transportation Research Center in Cambridge, Massachusetts, and the winning of a contract for technical publications support of NASA's Goddard Space Flight Center.

Raytheon's new Programmable Terminal System is finding wide variety of applications ranging from airline reservation systems to stock market transactions. Keyboard and TV-like display give operators at distant locations fast access to computer-stored information.





Raytheon's industrial, commercial, and consumer products businesses continued to expand, with sales in these areas accounting for 52 per cent of the company's total volume in 1972.

Contributing factors were the introduction of several significant new products; substantial growth by the major appliance, geophysical exploration, and electric power plant construction subsidiaries; and the entry into a new market with the acquisition of Iowa Manufacturing Company.

Data Systems

In 1972, Raytheon Data Systems Company completed the development of its PTS-100 Programmable Terminal System, introduced it to the marketplace both here and abroad, and promptly began to receive orders for a variety of applications ranging from airline reservation systems to consumer credit verification and stock market transactions.

The PTS-100 is an advanced, highly versatile system capable of handling, remote from the central processor, a wide variety of data control tasks including data collection, entry, retrieval, and editing.

The largest single PTS-100 sale to date is a \$2.6 million order from the Midwest Stock Exchange. The order is for 375 terminals to be

installed on the floor of the Midwest Exchange, at other major exchanges throughout the country, and at central and local offices of participating brokerage firms.

Other significant PTS-100 orders were from Trans Union Systems Corporation for use in its multi-city credit verification network; F.W. Faxon Company for use in its library subscription processing system; and Finnair, Swissair, Cathay Pacific, and Alitalia for use in their passenger reservation systems.

Sales are also growing in the RDS small computer and telecommunications product lines. Raytheon 700 Series computers reached a new sales high. Microwave communications system sales were made to Bell System operating companies, Western Union, TV networks, and several of the new specialized common carriers. The new RDS-80 digital microwave communications system is finding military as well as commercial applications.

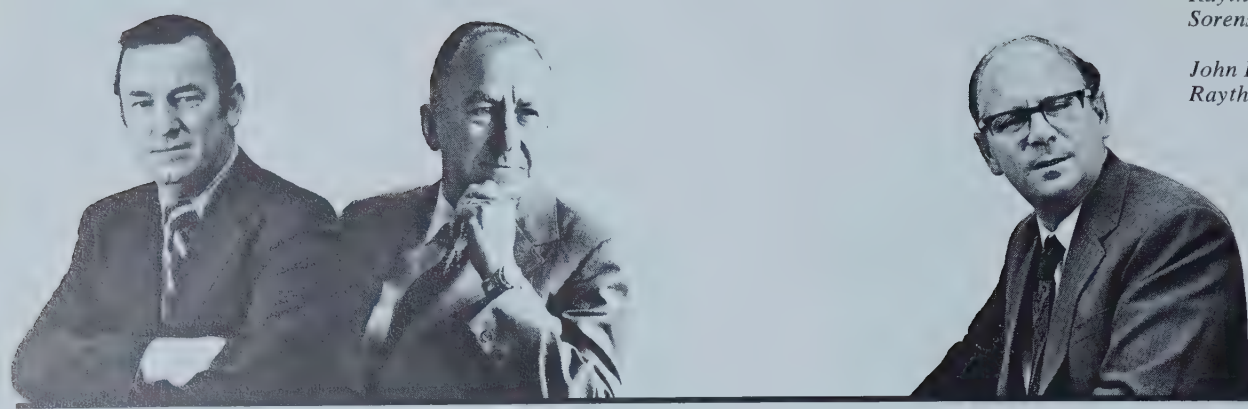
Medical Electronics

Sales of the company's line of nuclear scanners and accessories for diagnostic use by the medical profession increased substantially during the year. A nuclear gamma camera, introduced at the annual meeting of the Society of Nuclear Medicine in July, is receiving good market response. At the same meeting, the work being

*Francis M. Dowd
Semiconductor Division*

*E. Nevin Kather
Raytheon Marine Company
Sorensen Company*

*John D. Clare
Raytheon Europe*



done in conjunction with Raytheon's Research Division on the development of a Fresnel zone plate imaging system received the Society's highest award for medical instrumentation. Also for use as a diagnostic aid, the system is designed to provide more detailed pictures of body organs. In a further extension of the medical electronics product line, an agreement was made with Inter-technique of France to market in the U.S. that company's line of nuclear medical data handling equipment.

Machlett Laboratories introduced a new diagnostic X-ray tube and a high resolution X-ray image intensifying system for television fluoroscopy. Machlett also has a full line of precision X-ray collimators that automatically limit the X-ray beam to the size of the X-ray film, thereby minimizing exposure to both patient and doctor.

Marine Electronics

The Raytheon trademark on marine navigation and communications equipment is well known worldwide among skippers and crews of vessels ranging from small pleasure boats to commercial fishing craft and ocean-going ships.

Raytheon Marine Company introduced two lower-priced VHF/FM marine radiotelephones, a new single sideband radiotelephone, two automatic loran receivers, a flat-pack radio direction finder, and Fathometer® depth sounders using

light emitting diodes instead of neon bulbs for a steadier, brighter readout and longer life. An aggressive marketing program, including a new Dealers Advisory Council, was launched in 1972 to expand the company's sales through its franchised marine dealers.

Electronic Components

A leading supplier of discrete beam lead devices, Raytheon's Semiconductor Division is now moving to expand the use of these highly reliable circuits in commercial markets. The division introduced new, proprietary linear integrated circuits during 1972; broadened its line of digital MSI devices; and is moving into full production of high speed, bipolar memory devices utilizing its proprietary V-ATE process.

Raytheon's overseas subsidiaries and affiliates manufacture and market a wide range of electronic components and equipment. Among the important achievements in 1972 was the installation by A.C. Cossor Limited in England of more than 200 digital information display systems at London's Heathrow Airport for use by customs and 18 international airlines in handling all inventory and accounting transactions on incoming cargo. Sterling Cable Company, a subsidiary of A.C. Cossor Limited, had the best year of its 11-year association with Raytheon.

Nuclear gamma camera, a new diagnostic aid to the medical profession. Radiopharmaceuticals cause a selected internal body organ to emit gamma rays which are recorded by the camera to produce an accurate photographic image.

The new Ray-50 VHF/FM marine radiotelephone features a full 25 watts of power, 12 channels for two-way conversations, and an automatic "Sea Watch" that provides continuous monitoring of the emergency channel and one other channel of the operator's choice.





Major Appliances

Raytheon's major appliance business achieved a 23 per cent increase in 1972, with both Amana Refrigeration, Inc., and Caloric Corporation contributing to the growth. Major appliance sales in 1972 were more than \$150 million.

Growth at Amana

Amana has posted sales increases of about 20 per cent each year for the past several years. In 1972, Amana's growth was paced by its refrigerator and freezer line, Radarange® microwave ovens, and central heating and air conditioning systems.

Amana Radarange microwave ovens continued their rapid growth in 1972 and command a clear lead in that market. Amana now offers three models of the Radarange oven and in 1972 introduced a browning grill for the searing, grilling, roasting, or frying of meats in the Radarange oven. The grill utilizes a ferrite material developed and used by Raytheon in advanced phased array radars. Amana is extending its line of Radarange ovens for the commercial market.

Amana also introduced in 1972 its combination central heating and air conditioning unit built around the Raytheon Heat Transfer Module. The first of a family of Amana HTM products, the unit adds a whole new dimension to Amana's rapidly growing central systems business.

Caloric Expansion

For the first time in its 83-year history of specialization in gas appliances, Caloric entered the electric range market in 1972. At mid-year, Caloric introduced four electric range models for the builder market and in early 1973 introduced a line of electric ranges for retail sale.

Caloric continues to increase its share of the gas range market and now offers the industry's widest selection of self-cleaning and continuous-cleaning gas ranges. Caloric's production base was substantially augmented during 1972 by contracts for the production of gas ranges for another leading appliance company. Caloric is now field testing a direct burner ignition system that eliminates pilot lights in its gas ranges.

Production of Amana Radarange microwave ovens increases steadily as consumer demand grows. The microwave oven has established itself as a highly desirable convenience feature in the modern kitchen.



Final design features are worked out on the new Caloric electric range for retail sale. Caloric now offers electric ranges for builder and consumer markets, in addition to its broad line of gas ranges.



Robert E. Siegfried
The Badger Company, Inc.

Thomas M. Dahl
United Engineers & Constructors Inc.

E.D. Wilson
Seismograph Service Corporation



The Demand for Energy

The growing worldwide demand for increased supplies of energy continued in 1972 to have a substantial impact on the three subsidiary companies in Raytheon's exploration, engineering, and construction services group. The group accounted for \$365 million of Raytheon's 1972 volume. As the energy crisis intensifies, its impact on Raytheon will grow in 1973 and in the years ahead.

Exploration and Refining

Seismograph Service Corporation increased its volume 15 per cent in 1972, added crews in both the United States and overseas, and now has some 50 land and marine crews exploring for oil and gas on five continents.

In 1972, SSC significantly expanded the use of its Phoenix seismic data processing system, built around Raytheon 700 Series computers. Seventeen Phoenix centers are now operating at key locations around the world. SSC has recently been awarded two contracts by major oil companies specifying the SSC trailer-mounted Phoenix system for on-site use by domestic geophysical crews. SSC is expanding its oil well logging and other services to the petroleum industry.

With increasing requirements for added oil refining capacity in the U.S. and throughout the world, the demand for Badger Company design, engineering, and construction services is expected

to increase significantly in the years ahead. While the demand did not manifest itself in 1972, early in 1973 Badger was awarded two substantial refinery contracts totaling more than \$200 million.

The larger of these is for the construction of a 160,000-barrel-per-day refinery for Mobil Oil A.G. at Wilhelmshaven, West Germany. The project will incorporate complete pollution control systems with extensive water reuse, minimizing fresh water requirements, and complete odor control and noise abatement systems.

Electric Power

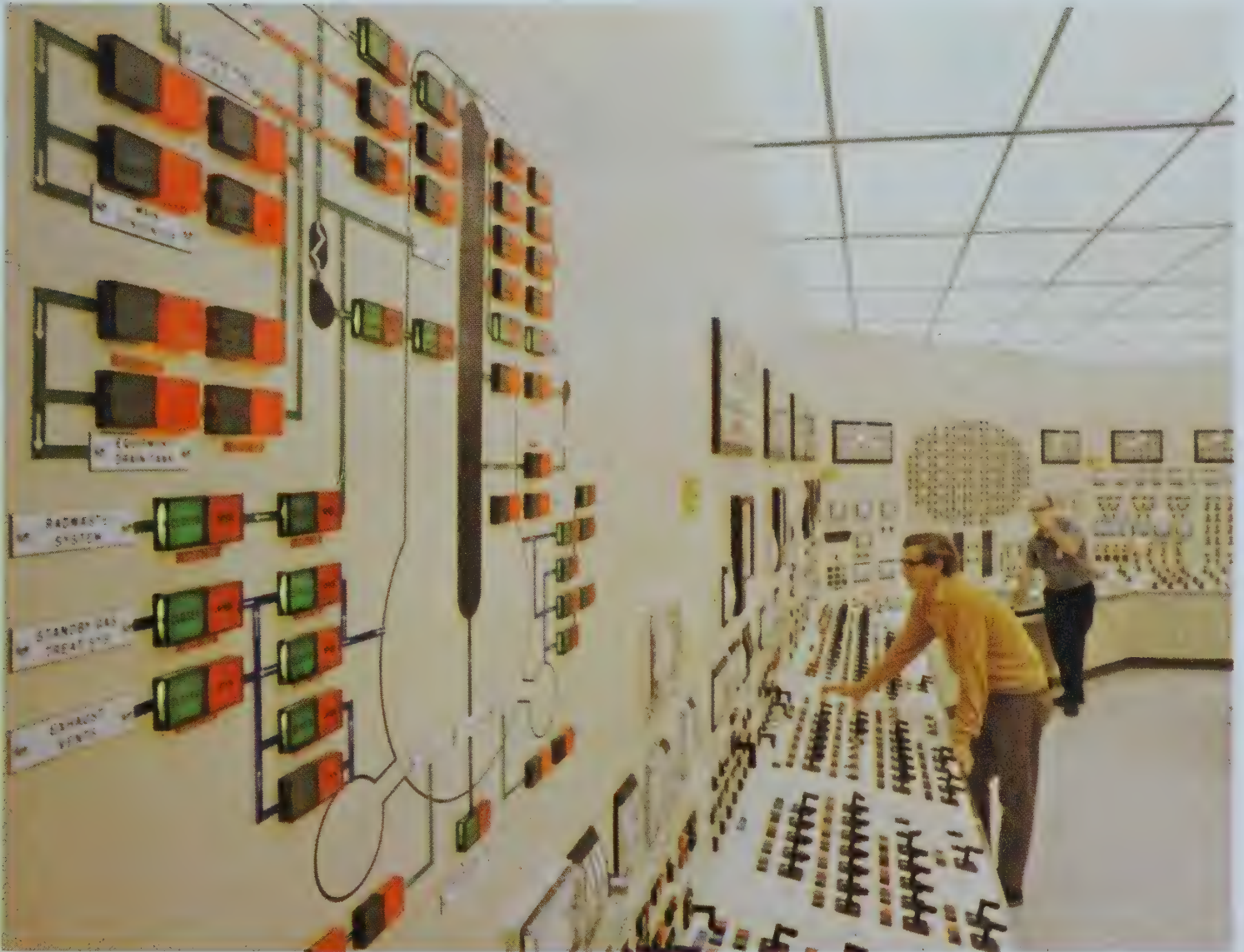
United Engineers achieved an all-time sales high in 1972 and entered 1973 with the highest backlog in its history. With requirements for electric power generating capacity expected to double by 1980, United is further strengthening its organization to meet the steadily increasing demand for its services to the utility industry.

Keeping in the forefront of advancing technology, United has a contract to engineer and design one of the first commercial-scale nuclear plants in the U.S. to use the new gas-cooled reactor concept. Its current involvement in nuclear power includes some 20 units representing more than 14 million kilowatts of generating capacity. Approximately one-half of United's projects outside the power generation field are devoted to protection of the environment.

Petroleum refinery built at Aliaga, Turkey, by The Badger Company's Turkish affiliate is a dramatic example of multinational cooperation. Participating were the management of Turkiye Petrolleri A.O., the client; Turkish and European craftsmen; the Russians who provided the design; and the five American members of the project team.



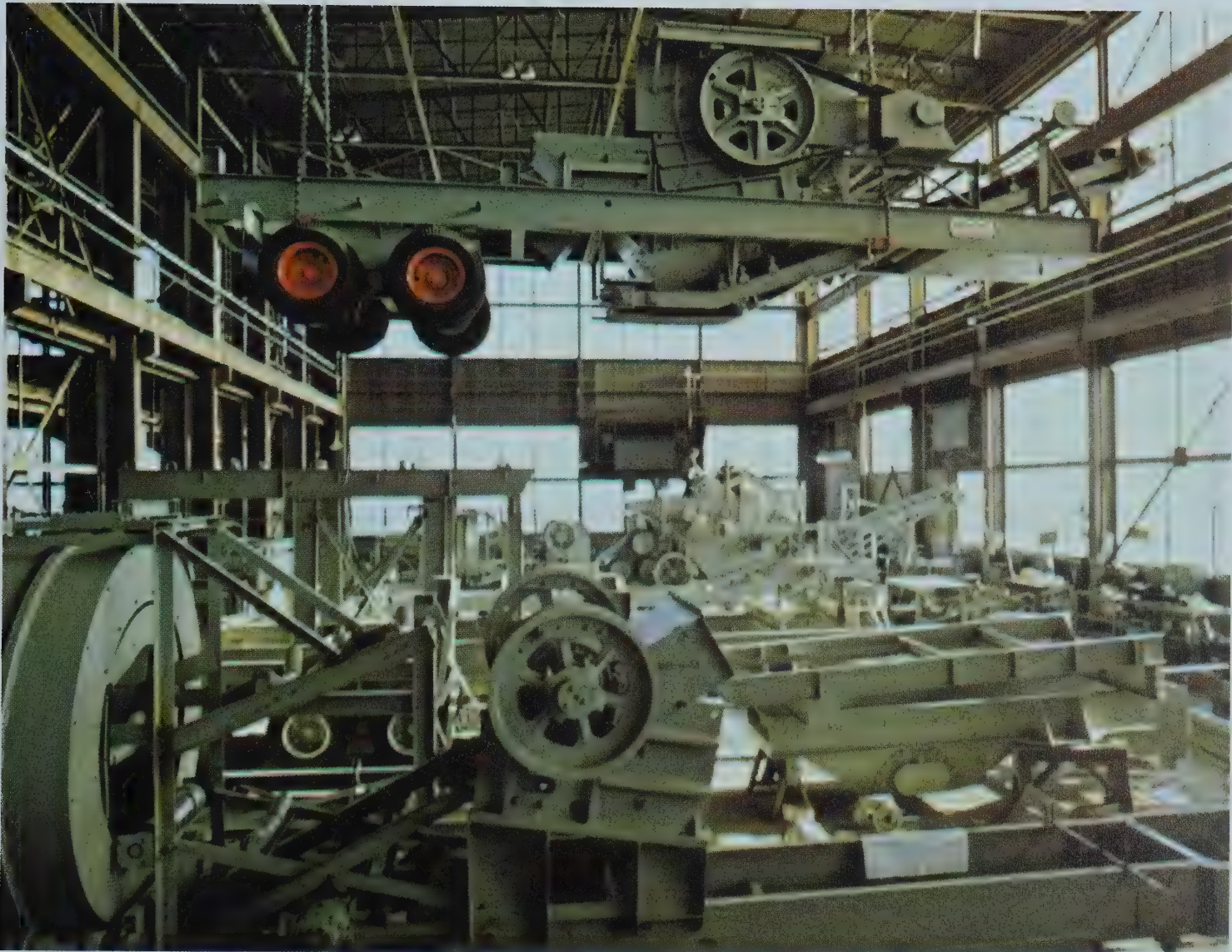
Control room of the Quad Cities nuclear-fueled electric power generating station built by United Engineers & Constructors for Commonwealth Edison Company and Iowa-Illinois Gas & Electric Company. The station is one of the nation's largest nuclear power plants in commercial operation.

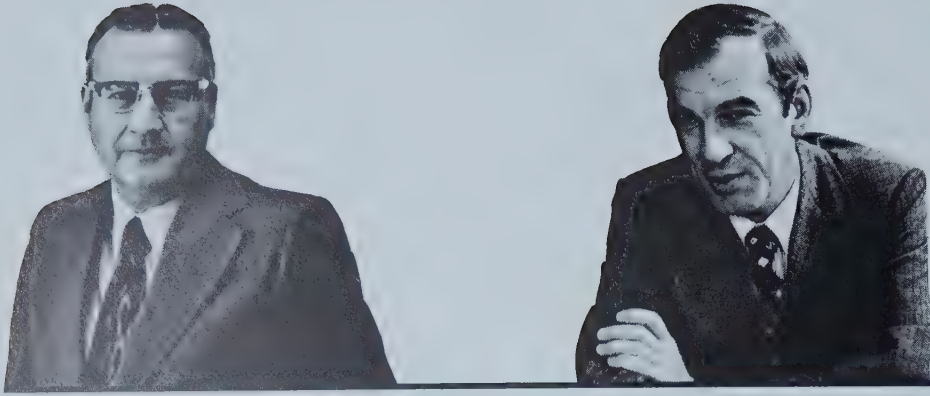


Seismograph Service Corporation's Phoenix system provides fast, on-site processing and analysis of seismic data. The Phoenix is built around Raytheon 700 Series computers.



Typical of the heavy construction equipment built by Iowa Manufacturing Company are these partially assembled crushing and screening units for the production of aggregates. The Cedarapids jaw crusher at top of the picture is being moved into place for final assembly.





Heavy Construction Equipment

Iowa Manufacturing Company of Cedar Rapids, Iowa, joined Raytheon in March of 1972 and represents a new market area for Raytheon. Under the familiar Cedarapids trademark, Iowa Manufacturing markets throughout the world a wide range of stationary and portable aggregate producing and asphalt mixing plants and asphalt paving equipment.

Iowa Manufacturing is observing its Fiftieth Anniversary in 1973 and celebrated in advance with a 15 per cent increase in sales in 1972 and the largest single order in its history. The order was for a stationary crushing and screening plant that will produce some 800 tons per hour of finished crushed stone construction aggregates.

Iowa Manufacturing Company serves the road building and heavy construction industries. Its equipment is used for paving new interstate highways and secondary roads; the repair and resurfacing of existing highways and roads; and the construction of buildings, docks, airports, and other projects in which aggregate is required.

The company's overseas sales growth in 1972 was spearheaded by aggressive road building and public works projects in several African nations and natural resource development projects in South America; and sales increased in such traditionally strong markets as Venezuela, Canada, and Japan.

The company's Iowa Steel and Iron Division operates a grey iron foundry from which it ships to a wide range of customers. The division also engineers and fabricates structural steel for all types of building construction.

Publishing

D.C. Heath and Company continued to expand its product line with the introduction of new materials and new editions of long successful Heath texts for school and college use.

Communicating, a new English series for grades one through six, is receiving widespread favorable comment by professional educators and has already been adopted in five states. The final two grades of *Heath Mathematics Program* were released during the year to complete this basal series for kindergarten through eighth grade.

The fourth edition of the popular *Heath Science Series* by Herman and Nina Schneider was issued. Four college texts were revised and a new college economics text was introduced during the year. In the spring of 1973, Heath plans to introduce new college texts in psychology and the history of Western civilization. Lexington Books, the professional and reference book division of D.C. Heath, published 105 titles in 1972 and plans to increase this number in 1973.

Authors John Dawkins and Morton
Botel visit a classroom using new
Communicating series published by
D.C. Heath. The oral-based lan-
guage arts program, spanning
grades one through six, integrates
literature, composition, and language.



Worldwide Consolidated Net Sales in 1972 were a record \$1.465 billion, an increase of \$118 million or approximately 9% over the restated \$1.347 billion sales in 1971. Of the total sales volume, 48% was for U.S. Government end use.

Income increased to a record \$41.2 million, before the extraordinary item, compared with the restated \$38.4 million in 1971, an increase of 7.3%. The 1972 return on sales of 2.81% approximated the 2.85% in 1971.

Earnings Per Common Share on a fully diluted basis were \$2.58 before the extraordinary item compared with the restated \$2.37 in 1971. These figures represent income before extraordinary item divided by the average number of shares (15,981,897 during 1972, 16,205,220 during 1971) which would have been outstanding assuming that all outstanding preferred stock had been converted to common stock at the beginning of the period and all applicable stock options had been exercised.

The 1971 results and applicable shares are restated to include the results of and shares issued for Iowa Manufacturing Company and its affiliate acquired in a pooling of interests transaction in March, 1972.

Dividends on the company's common stock were paid quarterly in cash at the annual rate of \$.60 per share. The total dividends of \$9.7 million declared in 1972 equalled approximately 26% of consolidated net earnings after the extraordinary item.

Common Shares outstanding increased by approximately 1,428,000 during 1972. Key employees purchased 90,115 shares under the provisions of the company Stock Option Plan;

928,729 shares were issued for conversion of a like number of shares of the Series A preferred stock which was called for redemption on February 1, 1972; 1,033,000 shares were issued for the acquisition of Iowa Manufacturing Company; and the company purchased 624,100 shares during the year at an average cost of \$36.12 per share.

Total Stockholders' Equity increased by \$8.3 million to \$336.0 million on a 1971 restated basis. The increase was provided by income before extraordinary item of \$41.2 million and the exercise of employee stock options of \$2.7 million offset by dividends of \$9.7 million, the extraordinary item of \$3.3 million, purchases of outstanding company common stock of \$22.5 million and redemption of Series A preferred stock of \$.1 million. The book value per outstanding common share (assuming full conversion of Series A preferred stock) increased from a restated \$20.35 in 1971 to \$21.59 in 1972. Return on average stockholders' equity before the extraordinary item remained constant at 12.3% in 1972 and restated 1971.

Debt decreased \$30.1 million from \$146.0 million at the end of 1971 to \$115.9 million at December 31, 1972. The company continues to issue commercial paper and maintains bank credit lines to finance its short-term borrowing requirements.

Backlog of the company totalled \$1.009 billion at the end of 1972 and represented a 7.7% increase over the \$937 million at the end of 1971. Funded U.S. Government orders increased 21.5% from \$446 million at the end of 1971 to \$542 million at December 31, 1972.

Wages and Salaries paid to employees were \$528.6 million in 1972 compared with the restated \$485.7 million in 1971. Total employment increased to 48,338 at the end of 1972 from 47,150 at the end of 1971.

Compensation was improved for the great majority of nonunionized and unionized employees, either with advance Pay Board approval or pursuant to Pay Board guidelines.

Plant and Equipment (net) increased \$2.0 million dollars in 1972 compared with a restated \$4.8 million decrease in 1971. Capital expenditures of \$32.4 million were approximately offset by depreciation of \$28.3 million and disposals of \$2.0 million.

Research and Development expenditures for company-sponsored projects decreased to \$30.6 million in 1972 from \$32.5 million in 1971. These were in addition to significant amounts of Government funded research and development expended on U.S. Government contracts.

Pension Expense charged to operations in 1972 for all plans was \$10.4 million. The company charges all current costs of pensions to operations as well as regular planned amounts for prior service where such liability exists. Pension funds of all plans affecting the United States and Canadian companies are managed by independent professional trustees.

Extraordinary Item consisting of an after tax provision of \$3,275,000 was recorded during 1972 for loss related to settlement of litigation with National Data Communications, Inc. and other expenses associated with withdrawal from the hospital information systems market.

Sales And Income By Business Lines

(Dollars in Millions)

	1972	1971	1970	1969	1968
Net Sales					
Electronics	\$ 818.9	\$ 748.9	\$ 784.5	\$ 831.8	\$ 785.4
Exploration, Engineering and Construction Services	364.9	345.9	287.0	263.4	238.0
Major Appliances	156.2	126.8	107.4	100.8	86.8
Other	<u>125.0</u>	<u>125.5</u>	<u>119.5</u>	<u>136.0</u>	<u>125.4</u>
Total	\$1,465.0	\$1,347.1	\$1,298.4	\$1,332.0	\$1,235.6
Income Before Taxes and Extraordinary Item					
Electronics	\$ 40.3	\$ 33.9	\$ 42.3	\$ 49.9	\$ 41.6
Exploration, Engineering and Construction Services	10.7	15.0	10.0	10.4	11.4
Major Appliances	11.9	8.8	7.0	6.0	5.0
Other	<u>10.7</u>	<u>12.8</u>	<u>10.9</u>	<u>10.7</u>	<u>10.5</u>
Total	\$ 73.6	\$ 70.5	\$ 70.2	\$ 77.0	\$ 68.5

Statistical Summary

Raytheon Company and Consolidated Subsidiaries

As Recorded in Annual Reports

(Dollars in Thousands Except Per Share Statistics)

	1972	1971	1970	1969	1968	1967
Sales						
Net sales	\$1,465,031	\$1,307,802	\$1,258,743	\$1,285,134	\$1,157,963	\$1,106,049
Income						
Before taxes	\$ 73,644	\$ 64,460	\$ 65,133	\$ 69,562	\$ 59,960	\$ 54,405
Before extraordinary items	\$ 41,174	\$ 35,185	\$ 34,343	\$ 35,232	\$ 30,845	\$ 28,602
After extraordinary items	\$ 37,899	\$ 35,185	\$ 30,943	\$ 35,232	\$ 29,569	\$ 28,602
Earnings per common share: (1)						
Outstanding shares:						
Before conversion of preferred stock:						
Before extraordinary item	—	\$2.43	\$2.32	\$2.35	\$2.10	\$1.98
After extraordinary item	—	\$2.43	\$2.08	\$2.35	\$2.01	\$1.98
After conversion of preferred stock:						
Before extraordinary item	\$2.59	—	—	—	—	—
After extraordinary item	\$2.38	—	—	—	—	—
Fully diluted – assumes conversion of preferred stock and exercise of dilutive stock options:						
Before extraordinary item	\$2.58	\$2.32	\$2.22	\$2.24	\$2.02	\$1.90
After extraordinary item	\$2.37	\$2.32	\$2.00	\$2.24	\$1.94	\$1.90
Income before extraordinary items as % of sales	2.8%	2.7%	2.7%	2.7%	2.7%	2.6%
Income before extraordinary items as % of average total stockholders' equity	12.3%	12.6%	13.1%	14.3%	14.4%	15.1%
Dividends Paid						
Common stock cash dividends	\$ 9,370	\$ 8,370	\$ 8,521	\$ 7,547	\$ 6,271	\$ 5,023
Preferred stock cash dividends	—	\$ 1,213	\$ 1,362	\$ 863	\$ 867	\$ 885
Assets						
Current	\$ 449,272	\$ 442,316	\$ 405,676	\$ 403,592	\$ 361,151	\$ 364,492
Property, plant and equipment (net)	\$ 136,180	\$ 128,686	\$ 133,165	\$ 116,348	\$ 91,087	\$ 78,255
Other noncurrent assets	\$ 45,677	\$ 41,533	\$ 38,445	\$ 18,896	\$ 13,428	\$ 17,298
Total	\$ 631,129	\$ 612,535	\$ 577,286	\$ 538,836	\$ 465,666	\$ 460,045
Working Capital						
Net working capital	\$ 236,051	\$ 207,825	\$ 130,124	\$ 158,012	\$ 160,391	\$ 148,042
Ratio of current assets to current liabilities	2.11	1.89	1.47	1.64	1.80	1.68
Financial Structure						
Total debt	\$ 115,865	\$ 146,031	\$ 156,557	\$ 116,221	\$ 116,568	\$ 155,143
Common stockholders' equity	\$ 336,013	\$ 292,438	\$ 265,441	\$ 259,825	\$ 225,652	\$ 200,948
Common stockholders' equity per share (2)	\$ 21.59	\$ 19.41	\$ 17.69	\$ 16.57	\$ 14.93	\$ 13.48
Debt to equity ratio	.34	.50	.59	.45	.52	.77
General						
Funded backlog of U.S. Government orders	\$ 542,345	\$ 446,233	\$ 386,947	\$ 299,042	\$ 429,151	\$ 380,287
Number of employees	48,338	45,750	46,201	53,300	51,588	50,146
Research and development (company-sponsored)	\$ 30,570	\$ 32,545	\$ 28,236	\$ 29,553	\$ 26,163	\$ 22,560
Depreciation and amortization on property, plant and equipment	\$ 28,344	\$ 27,222	\$ 26,342	\$ 22,153	\$ 19,585	\$ 16,694
Additions and replacements in property, plant and equipment	\$ 32,351	\$ 27,081	\$ 47,087	\$ 48,137	\$ 33,130	\$ 26,545
Shares outstanding (after deducting shares in treasury):						
Common	15,564,578	14,136,834	13,766,773	14,423,465	14,347,131	14,123,872
Preferred	—	932,356	1,239,183	1,259,263	770,403	788,948

Notes:

1. Earnings per share statistics computed on average number of shares, and on earnings reduced by preferred stock dividends where applicable.
2. Assuming full conversion of outstanding Series A preferred stock.
3. Statistics for the year 1967, relating to the number of common shares outstanding, have been adjusted to give effect to the two-for-one common stock split on June 4, 1968.

Restated to Reflect Poolings of Interests

(Dollars in Thousands Except Per Share Statistics)

	1972	1971	1970	1969	1968	1967
Sales						
Net sales	\$1,465,031	\$1,347,138	\$1,298,406	\$1,331,961	\$1,235,557	\$1,188,090
Income						
Before taxes	\$ 73,644	\$ 70,536	\$ 70,209	\$ 76,982	\$ 68,504	\$ 61,846
Before extraordinary items	\$ 41,174	\$ 38,408	\$ 36,964	\$ 38,811	\$ 34,876	\$ 32,931
After extraordinary items	\$ 37,899	\$ 38,408	\$ 33,564	\$ 38,811	\$ 33,600	\$ 32,931
Earnings per common share: (1)						
Outstanding shares:						
Before conversion of preferred stock:						
Before extraordinary item	—	\$2.48	\$2.34	\$2.41	\$2.17	\$2.07
After extraordinary item	—	\$2.48	\$2.11	\$2.41	\$2.09	\$2.07
After conversion of preferred stock:						
Before extraordinary item	\$2.59	—	—	—	—	—
After extraordinary item	\$2.38	—	—	—	—	—
Fully diluted — assumes conversion of preferred stock and exercise of dilutive stock options:						
Before extraordinary item	\$2.58	\$2.37	\$2.24	\$2.31	\$2.08	\$1.97
After extraordinary item	\$2.37	\$2.37	\$2.03	\$2.31	\$2.00	\$1.97
Income before extraordinary items as % of sales	2.8%	2.9%	2.8%	2.9%	2.8%	2.8%
Income before extraordinary items as % of average total stockholders' equity	12.3%	12.3%	12.5%	13.9%	13.9%	13.9%
Dividends Paid						
Common stock cash dividends	\$ 9,370	\$ 8,370	\$ 8,521	\$ 7,547	\$ 6,271	\$ 5,023
Preferred stock cash dividends	—	\$ 1,213	\$ 1,362	\$ 863	\$ 867	\$ 885
Assets						
Current	\$ 449,272	\$ 473,480	\$ 433,680	\$ 434,101	\$ 405,565	\$ 407,088
Property, plant and equipment (net)	\$ 136,180	\$ 134,165	\$ 138,930	\$ 122,145	\$ 97,176	\$ 84,837
Other noncurrent assets	\$ 45,677	\$ 47,312	\$ 44,501	\$ 22,805	\$ 16,912	\$ 19,735
Total	\$ 631,129	\$ 654,957	\$ 617,111	\$ 579,051	\$ 519,653	\$ 511,660
Working Capital						
Net working capital	\$ 236,051	\$ 231,885	\$ 151,998	\$ 181,517	\$ 188,835	\$ 175,247
Ratio of current assets to current liabilities	2.11	1.96	1.54	1.72	1.87	1.76
Financial Structure						
Total debt	\$ 115,865	\$ 146,031	\$ 156,710	\$ 116,303	\$ 118,494	\$ 157,389
Common stockholders' equity	\$ 336,013	\$ 327,756	\$ 299,003	\$ 293,029	\$ 263,574	\$ 237,135
Common stockholders' equity per share (2)	\$ 21.59	\$ 20.35	\$ 18.64	\$ 17.44	\$ 16.22	\$ 14.72
Debt to equity ratio	.34	.45	.52	.40	.45	.66
General						
Funded backlog of U.S. Government orders	\$ 542,345	\$ 446,233	\$ 386,947	\$ 299,042	\$ 429,151	\$ 380,287
Number of employees	48,338	47,150	47,601	54,722	55,429	54,020
Research and development (company-sponsored)	\$ 30,570	\$ 32,545	\$ 28,236	\$ 29,553	\$ 26,163	\$ 22,661
Depreciation and amortization on property, plant and equipment	\$ 28,344	\$ 28,034	\$ 27,176	\$ 22,924	\$ 20,432	\$ 17,734
Additions and replacements in property, plant and equipment	\$ 32,351	\$ 27,621	\$ 47,999	\$ 49,429	\$ 34,733	\$ 27,680
Shares outstanding (after deducting shares in treasury):						
Common	15,564,578	15,169,834	14,799,773	15,544,637	15,476,854	15,320,325
Preferred	—	932,356	1,239,183	1,259,263	770,403	788,948

Balance Sheets

Raytheon Company and Consolidated Subsidiaries

Assets

	Dec. 31, 1972	Dec. 31, 1971 (note B)
Current assets		
Cash and temporary investments	\$ 27,228,647	\$ 45,395,835
Accounts receivable:		
U.S. Government contracts, direct and indirect, including unbilled costs and fees on cost-type contracts: 1972 – \$13,098,721; 1971 – \$16,951,280	47,389,974	51,872,322
Other customers, less allowance for doubtful accounts: 1972 – \$3,146,649; 1971 – \$2,032,256	147,758,892	129,999,747
Inventories (note A):		
Fixed price contracts in process, less progress payments: 1972 – \$309,884,142; 1971 – \$250,864,287	90,091,056	109,725,094
Other (note C)	132,176,524	131,403,876
Prepaid expenses	4,626,668	5,082,809
Total current assets	449,271,761	473,479,683
 Long-term receivables	 24,451,793	 24,735,177
 Investments (note A)		
Affiliated companies	2,248,230	2,461,167
Other	5,853,791	5,803,805
 Property, plant and equipment, net (notes A and D)	 136,180,396	 134,165,216
 Deferred charges and other assets	 13,122,973	 14,311,943
	<u>\$631,128,944</u>	<u>\$654,956,991</u>

Liabilities and Stockholders' Equity

	Dec. 31, 1972	Dec. 31, 1971 (note B)
Current liabilities		
Notes payable:		
Banks	\$ 13,452,151	\$ 23,369,776
Other, principally commercial paper	17,509,813	34,025,000
Current maturity of long-term debt (note E)	3,008,670	3,029,532
Advance payments, less fixed price contracts in process:		
1972 – \$89,281,982; 1971 – \$118,181,154	25,126,795	20,909,918
Accounts payable	64,274,650	65,329,290
Accrued salaries, wages and commissions	33,381,132	30,529,601
Federal and foreign income taxes (notes A and F)	10,453,441	22,147,732
Other accrued expenses	<u>46,014,609</u>	<u>42,254,039</u>
Total current liabilities	213,221,261	241,594,888
Long-term debt (note E)	81,894,508	85,606,353
Commitments and contingent liabilities (note G)		
Stockholders' equity		
Serial preferred stock, without par value:		
Authorized 3,000,000 shares		
Series A, \$1.12 cumulative, convertible, stated value \$2.50		
Outstanding: 1971 – 932,356 shares (note H)	—	2,330,890
Common stock, par value \$2.50 per share:		
Authorized 30,000,000 shares		
Outstanding: 1972 – 15,564,578 shares; 1971 –		
15,169,834 shares (after deducting shares in		
treasury: 1972 – 1,635,063 shares;		
1971 – 1,010,963 shares) (notes H and I)	38,911,445	37,924,585
Capital in excess of par value (note H)	66,242,837	66,336,375
Earnings reinvested in the business (note E)	<u>230,858,893</u>	<u>221,163,900</u>
Total stockholders' equity	<u>336,013,175</u>	<u>327,755,750</u>
	<u>\$631,128,944</u>	<u>\$654,956,991</u>

Statements of Income and Earnings Reinvested in the Business

Raytheon Company and Consolidated Subsidiaries

	Year Ended Dec. 31, 1972	Year Ended Dec. 31, 1971 (note B)
Net sales	\$1,465,030,556	\$1,347,138,354
Cost of sales	1,233,982,002	1,119,100,669
Administrative and selling expenses	127,069,785	125,373,906
Research and development expenses (note A)	30,569,762	32,545,214
Interest expense on long-term debt	6,287,770	4,111,542
Other interest expense	2,751,297	6,168,274
Other income – net	(9,273,563)	(10,697,493)
	<u>1,391,387,053</u>	<u>1,276,602,112</u>
	73,643,503	70,536,242
Federal and foreign income taxes (notes A and F)	32,470,000	32,128,000
Income before extraordinary item	41,173,503	38,408,242
Extraordinary item:		
Provision for loss (after tax benefit of \$3,025,000) related to settlement of litigation and other expenses associated with the withdrawal from the hospital information systems market	3,275,000	—
Net income	37,898,503	38,408,242
Earnings reinvested in the business at beginning of period	221,163,900	194,139,344
	<u>259,062,403</u>	<u>232,547,586</u>
Dividends declared:		
Preferred, \$1.12 per share	—	1,213,342
Common, \$.60 per share	9,584,068	8,424,822
Pooled company, prior to acquisition	114,157	1,344,472
Excess of cost over the par value of reacquired common shares less amount allocated to capital in excess of par value	18,505,285	288,791
Transaction of pooled company prior to acquisition	—	112,259
	<u>28,203,510</u>	<u>11,383,686</u>
Earnings reinvested in the business at end of period	<u>\$ 230,858,893</u>	<u>\$ 221,163,900</u>
Earnings per common share (note A):		
Outstanding shares:		
Before conversion of preferred stock:		
Income before extraordinary item	—	\$2.48
Extraordinary item	—	—
Net income	—	<u>\$2.48</u>
After conversion of preferred stock:		
Income before extraordinary item	\$2.59	—
Extraordinary item	(.21)	—
Net income	<u>\$2.38</u>	—
Fully diluted – assumes conversion of preferred stock and exercise of dilutive stock options:		
Income before extraordinary item	\$2.58	\$2.37
Extraordinary item	(.21)	—
Net income	<u>\$2.37</u>	<u>\$2.37</u>

The accompanying notes are an integral part of the financial statements.

Statements of Changes in Financial Position

Raytheon Company and Consolidated Subsidiaries

	Year Ended Dec. 31, 1972	Year Ended Dec. 31, 1971 (note B)
Resources provided:		
Income before extraordinary item	\$ 41,173,503	\$ 38,408,242
Depreciation and amortization of property, plant and equipment	28,343,901	28,033,753
Working capital provided from operations exclusive of extraordinary item	69,517,404	66,441,995
Working capital applied to extraordinary item	(3,275,000)	—
Disposal of property, plant and equipment	1,991,985	4,352,375
Issuance of 8¼ % Sinking Fund Debentures	—	50,000,000
Sale of common stock under option plans	2,698,210	1,794,952
Decrease in investments	162,951	535,456
Decrease (increase) in deferred charges and other assets	1,188,970	(818,008)
Total resources provided	<u>72,284,520</u>	<u>122,306,770</u>
Resources applied:		
Additions to property, plant and equipment	32,351,066	27,621,232
Increase (decrease) in long-term receivables	(283,384)	2,528,838
Common shares reacquired	22,540,631	343,750
Dividends declared	9,698,225	10,982,636
Decrease in long-term debt	3,711,845	819,097
Conversion of Series A preferred stock:		
Decrease in preferred stock	2,321,822	767,067
(Increase) in common stock	(2,321,822)	(767,067)
Redemption of Series A preferred stock for cash	100,432	—
Capital transaction of a pooled company prior to acquisition	—	124,066
Total resources applied	<u>68,118,815</u>	<u>42,419,619</u>
Increase in working capital	\$ 4,165,705	\$ 79,887,151
Analysis of changes in working capital:		
Increase (decrease) in cash and temporary investments	\$ (18,167,188)	\$ 12,042,755
Increase in accounts receivable	13,276,797	28,173,804
Increase (decrease) in inventories	(18,861,390)	1,377,619
(Decrease) in prepaid expenses	(456,141)	(1,794,985)
Decrease in short-term debt	26,453,674	59,860,384
(Increase) in advance payments	(4,216,877)	(8,342,610)
(Increase) decrease in accounts payable	1,054,640	(4,317,158)
(Increase) in accrued salaries, wages and commissions	(2,851,531)	(1,126,674)
(Increase) decrease in Federal and foreign income taxes	11,694,291	(5,474,172)
(Increase) in other accrued expenses	(3,760,570)	(511,812)
Increase in working capital	<u>\$ 4,165,705</u>	<u>\$ 79,887,151</u>

Note A : Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the parent company and domestic and foreign subsidiaries which are included on the basis of years ending in November or December.

Inventories

The company follows the practice of accruing income from certain fixed priced contracts on the percentage of completion method with costs and estimated profits included in sales as work is performed. Accrued income is based on that percentage of estimated total income that incurred costs to date bear to total estimated costs after giving effect to the most recent estimates of cost and funding at completion. On certain fixed price contracts, increased funding has been assumed based on equitable adjustments of contract prices for increased scope and other changes ordered by the customer. Some contracts contain incentive provisions based upon performance in relation to established targets to which applicable recognition has been given in the contract estimates. Many of these contracts extend over long periods of time and revisions in cost and funding estimates during the progress of work have the effect of adjusting income in the current period applicable to performance in prior periods. When the current contract estimate indicates a loss, provision is made for the total anticipated loss. In accordance with these practices, fixed price contracts in process are stated at cost plus estimated profit but not in excess of realizable value.

Other inventories are stated at cost (first-in, first-out or average basis) but not in excess of net realizable value.

Investments

Investments in affiliated companies which represent ownership of 20% to 50% of such companies are accounted for under the equity method. Accordingly, the company's share of their earnings and the income taxes, if any, related to repatriating such earnings are included in the accounts. Other investments which represent ownership of less than 20% are stated at cost.

Property, Plant and Equipment

Property, plant and equipment is stated at cost.

Provisions for depreciation are computed generally on the sum-of-the-years digits method, except for certain subsidiaries that use the straight-line or declining balance method. Useful lives, on which depreciation provisions are based,

approximate U.S. Treasury guidelines. Leasehold improvements are amortized over the lesser of the life of the lease or the estimated useful life of the improvement.

Federal and Foreign Income Taxes

The company and its domestic subsidiaries record provision for federal income taxes on pretax accounting income at rates in effect under existing tax law, less investment tax credits recorded on a flow-through basis and other tax credits. Foreign subsidiaries have recorded provision for income taxes at applicable foreign tax rates in a similar manner. In addition, the company provides for federal and foreign taxes on undistributed earnings of foreign subsidiaries in excess of requirements for their future operations.

Research and Development Expenses

Research and development expenditures for company-sponsored projects are expensed as incurred.

Pension Costs

The company and its subsidiaries have several pension and retirement plans covering substantially all employees, including certain employees in foreign countries.

Annual charges to income are made for costs of the plans including current service costs and interest on and amortization of prior service costs over periods of ten to thirty years. It is the company's policy to fund pension costs accrued.

Translation of Foreign Currencies

Net assets of the foreign subsidiaries are translated into United States dollars at the applicable rates of exchange in effect at December 31 in each year, except that inventories other than fixed price contracts in process and property, plant and equipment are translated at historic rates. Income accounts are translated, generally, at the year's average rates of exchange, except for depreciation and costs of sales which are translated at the rates of the related assets. Currency exchange gains or losses are included in consolidated net income.

Earnings per Common Share

Earnings per common share are based upon the weighted average number of common shares outstanding during each year after giving retroactive effect to common shares issued in the pooling of interests transaction (note B) as if effected on January 1, 1971. Income before extraordinary item and net income are reduced in 1971 by the Series A preferred stock dividends.

Fully diluted earnings per common share assumes the full conversion of the Series A preferred stock as if effected on January 1, 1971 and the annual computation of additional shares resulting from the assumed exercise of all outstanding dilutive stock options, reduced by the number of shares repurchasable from the assumed proceeds of the exercise of such options. Shares contingently issuable in connection with acquisition agreements are anti-dilutive.

Note B: Acquisitions

The company acquired Iowa Manufacturing Company of Cedar Rapids, Iowa, a manufacturer of road building equipment, and its affiliate, Iowa Steel and Iron Works, Inc., a fabricator of steel products, in March 1972, in exchange for 1,033,000 shares of its previously unissued common stock. The acquisition has been accounted for as a pooling of interests and, accordingly, the operations of the Iowa companies are included for the entire year. The consolidated financial statements for 1971 have been restated to include the results of the acquired companies.

Had the accounts of the Iowa companies been excluded from the financial statements for the years 1972 and 1971, the effect would have been to report net sales of \$1,419,899,264 and \$1,307,802,298, income before extraordinary item of \$37,405,925 and \$35,184,900 and net income of \$34,130,925 and \$35,184,900, respectively.

Note C: Other Inventories

Other inventories consist of the following at December 31:

	1972	1971
Finished goods	\$ 44,189,521	\$ 43,633,533
Work in process	57,537,154	58,643,887
Materials and purchased parts	36,921,367	34,976,281
	<u>138,648,042</u>	<u>137,253,701</u>
Less progress payments received	6,471,518	5,849,825
	<u>\$132,176,524</u>	<u>\$131,403,876</u>

Note D: Property, Plant and Equipment

Property, plant and equipment consists of the following at December 31:

	1972	1971
Land	\$ 5,406,219	\$ 5,658,316
Buildings and leasehold improvements	93,316,499	89,845,833
Machinery and equipment	223,227,525	207,263,239
	<u>321,950,243</u>	<u>302,767,388</u>
Less accumulated depreciation and amortization	185,769,847	168,602,172
	<u>\$136,180,396</u>	<u>\$134,165,216</u>

Note E: Long-Term Debt

Long-term debt at December 31, 1972, consists of the following:

8¼ % Sinking Fund Debentures, due 1996	\$50,000,000
5½ % notes payable \$1,000,000 semi-annually with balance payable December 1, 1981	23,000,000
8 % note payable in 1979	4,700,000
Other notes (including \$2,266,945 of mortgage notes) principally in the range of 5½ % to 7¼ %, payable in installments, maturing at various dates from 1974 to 1982	7,203,178
	<u>84,903,178</u>
Less amounts maturing during 1973	3,008,670
	<u>\$81,894,508</u>

The aggregate amounts of indebtedness maturing in each of the succeeding four years are: 1974 – \$4,797,793; 1975 – \$3,063,492; 1976 – \$2,756,817; 1977 – \$2,456,114.

The indenture for the 8¼ % Sinking Fund Debentures provides that the company will make annual sinking fund payments of \$3,300,000 prior to July 1 in each of the years 1982 through 1995 and may at its option increase any sinking fund payment by an additional \$3,300,000 in each of said years. The Debentures may be redeemed at the option of the company, as a whole or in part, at any time, at prices decreasing from 107.37% of face value currently to 100% in 1991 and thereafter, except that until 1981, borrowed funds used for this purpose must bear a higher interest rate.

Under the agreement covering the 5½ % notes due through 1981, \$138,574,226 of earnings reinvested in the business at December 31, 1972, is unrestricted with respect to cash dividends on common stock.

Note F: Federal and Foreign Income Taxes

Investment tax credits amounted to \$1,142,090 and \$456,609 in 1972 and 1971, respectively.

Income reported for federal and foreign tax purposes differs from pretax accounting income due to various requirements of internal revenue codes and the company's accounting practices. The differences are not fully determined until after the reporting of the results for the year. At December 31, 1972, the net credit balance of deferred taxes and the net decrease during the year were estimated to be \$7,000,000 and \$3,800,000, respectively.

Prior to 1972, the company did not accrue federal and foreign taxes that would arise if the undistributed earnings of foreign subsidiaries were distributed in the form of dividends, except for the foreign subsidiaries of The Badger Company, Inc. In 1972, the company changed its practice to that described in note A. The effect of this change on net income of the current and prior years was not material and, accordingly, the financial statements of prior years have not been restated.

The amount of undistributed earnings of foreign subsidiaries required for their future operations for which federal income and foreign withholding taxes have not been provided was approximately \$8,400,000 at December 31, 1972, exclusive of amounts which if remitted would result in little or no additional tax.

Note G: Commitments and Contingent Liabilities

At December 31, 1972, the company had long-term leases on real property expiring on various dates subsequent to 1975, requiring annual rentals on a net lease basis of approximately \$8,400,000 through 1975, and lesser amounts thereafter.

Various claims, generally incidental to the conduct of normal business, are pending or threatened against the company from time to time. Ultimate liability, if any, is presently indeterminable and, in the opinion of the management, should have no material adverse effect on the financial condition of the company.

Note H: Capital Stock and Capital in Excess of Par Value

Changes during the year ended December 31, 1972, in capital stock and capital in excess of par value were as follows:

	Series A Preferred		Common		Capital in
	Shares	Amount	Shares	Amount	Excess of Par Value
Balance at beginning of year	932,356	\$2,330,890	15,169,834	\$37,924,585	\$66,336,375
Shares sold to officers and employees under stock option plans			90,115	225,288	2,472,922
Conversion of Series A preferred stock to common stock	(928,729)	(2,321,822)	928,729	2,321,822	
Redemption of Series A preferred stock for cash	(3,627)	(9,068)			(91,364)
Common shares reacquired			(624,100)	(1,560,250)	(2,475,096)
Balance at end of year	<u>—</u>	<u>\$ —</u>	<u>15,564,578</u>	<u>\$38,911,445</u>	<u>\$66,242,837</u>

Pursuant to the company's call for redemption of all the outstanding Series A stock on February 1, 1972, 928,729 shares were converted into an equal number of shares of common stock and 3,627 shares were redeemed for cash at \$27.69 per share.

At December 31, 1972, the following shares of common stock (including shares held in treasury) were reserved:

For stock options (note I)	682,531
For contingent issuance of shares in the acquisitions of P.E.D., Inc. and Caedmon Records, Inc.	93,277
	<u>775,808</u>

Note I: Stock Options

During 1972, options to purchase 81,500 shares of common stock under the 1968 Qualified Stock Option Plan were granted to officers and employees at prices equivalent to 100% of the fair market value on the date of grant. Options for 90,115 shares were exercised at prices ranging from \$17.81 to \$44.78 per share, and options for 74,384 shares expired.

At December 31, 1972, options to purchase 602,406 shares of common stock were outstanding at prices ranging from \$17.81 to \$52.88 of which options for 440,698 shares were exercisable. All outstanding options expire at various dates through December 27, 1977.

Note J: Pension Costs

Total pension expense charged to income was \$10,435,020 and \$9,187,126 in 1972 and 1971, respectively.

Unfunded prior service costs approximated \$35,340,000 at December 31, 1972, of which \$3,529,328 was accrued at that date. The amounts funded and accrued exceeded the actuarially computed value of vested benefits at December 31, 1972, for all plans except four wherein excess vested benefits amounted to \$4,607,000.

Note K: Foreign Operations

The net assets, net sales and net income of foreign subsidiaries were:

	1972	1971
Net assets	\$ 37,442,847	\$ 33,529,113
Net sales	\$283,240,853	\$255,436,585
Net income	\$ 7,826,563	\$ 7,705,670

Net income includes approximately \$170,000 of foreign exchange translation loss attributable to a currency devaluation in 1972 and approximately \$500,000 of net translation gain due to currency revaluations in 1971. There are no significant exchange restrictions.

Auditor's Report

To the Board of Directors and Stockholders
Raytheon Company
Lexington, Massachusetts

We have examined the balance sheet of Raytheon Company and consolidated subsidiaries at December 31, 1972 and the related statements of income and earnings reinvested in the business and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We previously examined and reported upon the financial statements for the year 1971, which have been restated to include the accounts of a company acquired in 1972, accounted for as a pooling of interests.

In our opinion, the aforementioned financial statements present fairly the financial position of Raytheon Company and consolidated subsidiaries at December 31, 1972 and 1971, and the results of their operations and changes in financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Sydney, Ross Bros. & Montgomery

Boston, Massachusetts
January 22, 1973

Stock Transfer Agents

Morgan Guaranty Trust Company of New York
New York, New York 10007

Harris Trust and Savings Bank
Chicago, Illinois 60690

Bank of America NT & SA
San Francisco, California 94120

The First National Bank of Boston
Boston, Massachusetts 02110

Stock Registrars

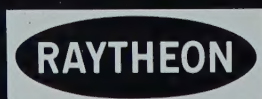
Manufacturers Hanover Trust Company
New York, New York 10015

Continental Illinois National Bank
and Trust Company of Chicago
Chicago, Illinois 60690

United California Bank
San Francisco, California 94104

The National Shawmut Bank of Boston
Boston, Massachusetts 02106

Directors	Management	Operating Management	Kenneth J. Haas
Charles F. Adams	Charles F. Adams	Adrian J. Brogгинi	<i>Executive Vice President</i>
<i>Chairman of the Board</i>	<i>Chairman of the Board</i>	<i>Chairman of the Board</i>	<i>General Manager</i>
Charles F. Avila	Thomas L. Phillips	<i>The Badger Company, Inc.</i>	<i>Caloric Corporation</i>
<i>Retired Chairman of the Board</i>	<i>President</i>	Henry M. Chance II	Harold M. Hart
<i>Boston Edison Company</i>	D. Brainerd Holmes	<i>Chairman of the Board</i>	<i>Vice President</i>
Harvey Brooks	<i>Executive Vice President</i>	<i>United Engineers</i>	<i>Assistant General Manager-</i>
<i>Dean of Engineering and</i>		<i>& Constructors Inc.</i>	<i>Technical</i>
<i>Applied Physics</i>		John D. Clare	<i>Equipment Division</i>
<i>Harvard University</i>	Corporate Staff Management	<i>Vice President</i>	E. Nevin Kather
Roger C. Damon	Albert H. Bryan, Jr.	<i>General Manager</i>	<i>Vice President</i>
<i>Former Chairman of the Board</i>	<i>Vice President</i>	<i>Raytheon Europe</i>	<i>President</i>
<i>First National Boston Corporation</i>	<i>Government Programs</i>	Thomas M. Dahl	<i>Raytheon Marine Company</i>
Eli Goldston	Harry L. Evans	<i>President</i>	<i>Sorensen Company</i>
<i>President</i>	<i>Vice President</i>	<i>United Engineers</i>	Harry A. Loebel
<i>Eastern Gas and Fuel Associates</i>	<i>Corporate Development</i>	<i>& Constructors Inc.</i>	<i>President</i>
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<i>President</i>	<i>Vice President, Engineering</i>	<i>Senior Vice President</i>	Joseph R. Loufek
<i>Victory Carriers, Inc.</i>	W. Rogers Hamel	<i>General Manager</i>	<i>President</i>
D. Brainerd Holmes	<i>Vice President</i>	<i>Microwave and Power Tube</i>	<i>Iowa Manufacturing Company</i>
<i>Executive Vice President</i>	<i>Corporate Activities</i>	<i>Division</i>	Justin M. Margolskee
Gordon B. Jones	<i>Washington, D.C.</i>	Luther Davis, Jr.	<i>Vice President</i>
<i>Executive Vice President</i>	Robert G. Hennemuth	<i>General Manager</i>	<i>General Manager</i>
<i>Financial Operations</i>	<i>Vice President</i>	<i>Research Division</i>	<i>Missile Systems Division</i>
<i>John Hancock Mutual</i>	<i>Industrial Relations</i>	Palmer Derby	J. Thomas Markley
<i>Life Insurance Company</i>	Robert L. McCormack	<i>Vice President</i>	<i>Vice President</i>
Colman M. Mockler, Jr.	<i>Vice President</i>	<i>Assistant General Manager</i>	<i>President</i>
<i>Vice Chairman of the Board</i>	<i>Director, Real Estate Planning</i>	<i>Microwave and Power Tube</i>	<i>Raytheon Data Systems Company</i>
<i>The Gillette Company</i>	Joseph Oppenheim	<i>Division</i>	Ralph A. Martin
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<i>Retired Chairman of the Board</i>	<i>International Affairs</i>	<i>President</i>	<i>General Manager</i>
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<i>President</i>	<i>and General Counsel</i>	<i>General Manager</i>	<i>Vice President</i>
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<i>Chairman of the Board</i>	<i>Vice President, Controller</i>	George C. Foerstner	<i>Missile Systems Division</i>
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	<i>Vice President</i>	<i>Amana Refrigeration, Inc.</i>	<i>Senior Vice President</i>
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	J.H. Sidebottom	<i>Technical</i>	<i>General Manager</i>
	<i>Vice President</i>	<i>Missile Systems Division</i>	<i>Electromagnetic Systems Division</i>
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	<i>Vice President, Manufacturing</i>	<i>Manager, Equipment</i>	<i>The Badger Company, Inc.</i>
	G. Richard Westin	<i>Development Laboratories</i>	E.D. Wilson
	<i>Vice President, Treasurer</i>	<i>Equipment Division</i>	<i>President</i>
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	<i>Director, Financial Relations</i>	<i>Vice President</i>	Floyd T. Wimberly
	Richard F. Daly	<i>President</i>	<i>Vice President</i>
	<i>Director, Government Marketing</i>	<i>D.C. Heath and Company</i>	<i>Manager, SAM-D Program</i>
	James M. Hill, Jr.	Joseph Glasser	<i>Missile Systems Division</i>
	<i>Director, Procurement</i>	<i>Vice President</i>	
	Stephen W. Rowen	<i>Manager, Andover Plant</i>	
	<i>Director, Government Contracts</i>	<i>Missile Systems Division</i>	



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